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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,503	AMIN ET AL.	
	Examiner	Art Unit	
	Qing Chen	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20080714, 20080922, 20081209*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to the amendment filed on September 22, 2008.

2. **Claims 1-6 and 8-29** are pending.

3. **Claims 1, 4, 10, 20, and 29** have been amended.

4. **Claim 7** has been canceled.

5. The objection to the drawings is withdrawn in view of Applicant's submission of the replacement drawing sheet.

6. The objections to Claims 1-8 are withdrawn in view of Applicant's amendments to the claims. However, Applicant's amendments to the claims fail to address the objections to Claims 9-19 due to improper antecedent basis and inconsistent claim language. Accordingly, these objections are maintained and further explained hereinafter.

7. The 35 U.S.C. § 112, second paragraph, rejections of Claims 1-9 and 20-28 are withdrawn in view of Applicant's amendments to the claims.

Response to Amendment

Claim Objections

8. **Claims 1-6 and 8-19** are objected to because of the following informalities:

- **Claim 1** recites the limitation "the seamless presentation." Applicant is advised to change this limitation to read "the seamless presentation of media" for the purpose of providing it with proper explicit antecedent basis.
- **Claims 2-6, 8, and 9** depend on Claim 1 and, therefore, suffer the same deficiency as Claim 1.

- **Claim 9** recites the limitation "the pipeline topology." Applicant is advised to change this limitation to read "the partial media pipeline topology" for the purpose of providing it with proper explicit antecedent basis.
- **Claims 10, 11, 13, and 14** recite the limitation "a/the partial topology." Applicant is advised to change this limitation to read "a/the partial media topology" for the purpose of keeping the claim language consistent throughout the claims.
- **Claims 12 and 15-19** depend on Claim 10 and, therefore, suffer the same deficiency as Claim 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 1-6, 8, 9, and 20-29** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations:

- "the decoder,"
- "the encoder,"
- "the same encoder,"

- "the media source node," and
- "the media sink node."

There are insufficient antecedent bases for these limitations in the claim. In the interest of compact prosecution, the Examiner subsequently interprets these limitations as reading:

- "a decoder,"
- "an encoder,"
- "a same encoder,"
- "the first media source node," and
- "the first media sink node," respectively,

for the purpose of further examination.

Claims 2-6, 8, and 9 depend on Claim 1 and, therefore, suffer the same deficiency as Claim 1.

Claim 20 recites the limitation "the media sink node." There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading "the first media sink node" for the purpose of further examination.

Claims 21-28 depend on Claim 20 and, therefore, suffer the same deficiency as Claim 20.

Claim 29 recites the limitation "the nodes." There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading "a plurality of nodes" for the purpose of further examination.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. **Claims 1-6, 8, and 9** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-6, 8, and 9 are directed to a method. However, the recited steps of the method are held to be non-statutory subject matter because the recited steps of the method are (1) not tied to another statutory class (such as a particular apparatus) or (2) not transforming the underlying subject matter (such as an article or materials) to a different state or thing.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. **Claims 1-6 and 8-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US 6,725,279 (hereinafter "Richter")** in view of **US 5,878,431 (hereinafter "Potterveld")** and **US 2004/0004631 (hereinafter "Debique")**.

As per **Claim 1**, Richter discloses:

- receiving a partial media pipeline topology that defines how data flows through a plurality of nodes in the partial media pipeline topology including at least a first media source node and at least a first media sink node *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."; Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.")*;

- retrieving a media pipeline topology when the partial media pipeline topology is not sufficient to permit presentation to further define how data flows through a plurality of nodes in the partial media pipeline topology including at least a second media source node, at least a second media sink node, and at least one transform node *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task.";*

Column 4: 7-10, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task." and 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface."); and

- cloning one or more nodes including state information from the media pipeline topology to the partial media pipeline topology during a media application session thus creating a full media pipeline topology to facilitate seamless presentation of media *(see Column 4: 10-19, "The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").*

However, Richter does not disclose:

- retrieving a cached media pipeline topology;

- maintaining a data table that correlates one or more decoders or encoders in the cached media pipeline topology with one or more source nodes or destination nodes in the cached media pipeline topology;

- associating a source node with a same instance of a decoder and requiring that a same decoder be used if a media source code is re-used in a subsequent topology or a destination node with the same instance of an encoder and requiring that a same encoder be used if a media destination node is re-used in a subsequent topology; and

- facilitating the seamless presentation of media when receiving data from the first media source node by starting a presentation clock after receiving data at the first media sink node.

Potterveld discloses:

- retrieving a cached media pipeline topology *(see Column 5: 29-41, "A collection of objects and the topological associations between them is referred to herein as a "topology." A system which manages such topologies is referred to herein as a "topological" management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed objects."; Column 6: 60-67 to Column 7: 1-7, "It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.")*;

- maintaining a data table that correlates one or more data constructs in the cached media pipeline topology with one or more data constructs in the cached media pipeline topology *(see Column 7: 20-23, "The data constructs are indicated by labeled boxes and the relationships between the data constructs are indicated by lines connecting the related boxes to a diamond shaped entity.")*; and

- associating a source node with a same instance of a decoder and requiring that a same decoder be used if a media source code is re-used in a subsequent topology or a destination node with the same instance of an encoder and requiring that a same encoder be used if a media destination node is re-used in a subsequent topology *(see Column 7: 36-39, "A one-to-one relationship indicates that each data construct represented by the box at one end of the relationship is related to exactly one of the type of data constructs at the opposite end of the relationship.")*. [Examiner's Note: One of ordinary skill in the art would readily recognize that by defining a one-to-one relationship between Richter's multimedia processing blocks (*e.g.*, a source node and a decoder), the execution of the multimedia processing blocks are linked. Thus, if one multimedia processing block is executed in another processing configuration, the other multimedia processing block is also executed as required by the one-to-one relationship.]

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include retrieving a cached media pipeline topology; maintaining a data table that correlates one or more decoders or encoders in the cached media pipeline topology with one or more source nodes or destination nodes in the cached media pipeline topology; and associating a source node with a same instance of a decoder and requiring that a same decoder be used if a media source code is re-used in a subsequent topology or a destination node with the same instance of an encoder and requiring that a same encoder be used if a media destination node is re-used in a subsequent topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2)*.

Debique discloses:

- facilitating the seamless presentation of media when receiving data from the first media source node by starting a presentation clock after receiving data at the first media sink node *(see Paragraph [0016], "Examples of basic multimedia information that may be obtained and made available by the media source API include, but are not limited to, the duration of a multimedia presentation, the duration of any individual stream in the presentation, the number of streams in the presentation, the media types supported by each stream, and the start and stop times associated with each stream in the presentation, as described below in more detail.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Debique into the teaching of Richter to include facilitating the seamless presentation of media when receiving data from the first media source node by starting a presentation clock after receiving data at the first media sink node. The modification would be obvious because one of ordinary skill in the art would be motivated to determine the duration of the multimedia content *(see Debique – Paragraph [0010]).*

As per **Claim 2**, the rejection of **Claim 1** is incorporated; however, Richter and Debique do not disclose:

- wherein the partial media pipeline topology is received from a remote process as a parameter in an interface call.

Potterveld discloses:

- wherein the partial media pipeline topology is received from a remote process as a parameter in an interface call *(see Column 23: 15-17, "If the parameters are valid, processing*

continues with element 706 to verify that the entity to be added is not already known to the topology management service API.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the partial media pipeline topology is received from a remote process as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 3**, the rejection of **Claim 1** is incorporated; however, Richter and Debique do not disclose:

- wherein the cached media pipeline topology is retrieved as a parameter in an interface call.

Potterveld discloses:

- wherein the cached media pipeline topology is retrieved as a parameter in an interface call *(see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the cached media pipeline topology is retrieved as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 4**, the rejection of **Claim 1** is incorporated; and Richter further discloses:

- determining whether there are corresponding nodes in the partial media pipeline topology and the cached media pipeline topology *(see Column 3: 25-29, "For example, to determine whether or not a multimedia flow may be created between block B1 and block B2, the application interface examines the connecting ports of output interface IS1 of block 1 and those of the input interface of block B2.").*

As per **Claim 5**, the rejection of **Claim 4** is incorporated; and Richter further discloses:

- transferring the at least one transform node from the cached media pipeline topology to the partial media pipeline topology *(see Column 4: 7-15, "The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system.").*

As per **Claim 6**, the rejection of **Claim 1** is incorporated; and Richter further discloses:

- cloning a plurality of connected nodes from the cached media pipeline topology into the partial media pipeline topology *(see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the*

application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").

As per **Claim 8**, the rejection of **Claim 1** is incorporated; and Richter further discloses:

- connecting one or more nodes in the partial media pipeline topology *(see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses.").*

As per **Claim 9**, the rejection of **Claim 8** is incorporated; and Richter further discloses:

- wherein connecting the one or more nodes in the partial media pipeline topology between the first media source node and the first media sink node comprises generating a data path between an output of a node and an input of an intermediate node *(see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses.").*

As per **Claim 10**, Richter discloses:

- one or more computer-readable storage media (see FIGURE); and
- a media engine embodied on the one or more computer-readable storage media and configured to communicatively interact with an application to seamlessly present a media presentation *(see Column 3: 5-8, "The system in this FIGURE also comprises two multimedia*

processing blocks B1 and B2 to run a multimedia task. The blocks are declared to the application interface IA when they are incorporated in the system.");

- the media engine being configured to use:

- a media session to generate a partial media topology, the partial media topology including one or more media sources, individual ones of which serving as a source of media content, and one or more media sinks configured to sink a media stream *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."; Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.")*; and

- a topology loader to resolve the partial media topology into a full media topology, wherein the topology loader is configured to clone one or more nodes including state information from a media topology to resolve the full media topology, and the topologies define a flow of data through the nodes *(see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA*

only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").

However, Richter does not disclose:

- a cached media topology; and
- a presentation clock is started after receiving data at a node.

Potterveld discloses:

- a cached media topology *(see Column 5: 29-41, "A collection of objects and the topological associations between them is referred to herein as a "topology." A system which manages such topologies is referred to herein as a "topological" management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed objects."; Column 6: 60-67 to Column 7: 1-7, "It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include a cached media topology. The modification would be obvious because one of ordinary

skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).*

Debique discloses:

- a presentation clock is started after receiving data at a node *(see Paragraph [0016], "Examples of basic multimedia information that may be obtained and made available by the media source API include, but are not limited to, the duration of a multimedia presentation, the duration of any individual stream in the presentation, the number of streams in the presentation, the media types supported by each stream, and the start and stop times associated with each stream in the presentation, as described below in more detail.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Debique into the teaching of Richter to include a presentation clock is started after receiving data at a node. The modification would be obvious because one of ordinary skill in the art would be motivated to determine the duration of the multimedia content *(see Debique – Paragraph [0010]).*

As per **Claim 11**, the rejection of **Claim 10** is incorporated; however, Richter and Debique do not disclose:

- wherein the media session passes the partial media topology to the topology loader as a parameter in an interface call.

Potterveld discloses:

- wherein the media session passes the partial media topology to the topology loader as a parameter in an interface call *(see Column 23: 15-17, "If the parameters are valid, processing*

continues with element 706 to verify that the entity to be added is not already known to the topology management service API.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the media session passes the partial media topology to the topology loader as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 12**, the rejection of **Claim 10** is incorporated; however, Richter and Debique do not disclose:

- wherein the media session passes the cached media topology to the topology loader as a parameter in an interface call.

Potterveld discloses:

- wherein the media session passes the cached media topology to the topology loader as a parameter in an interface call *(see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the media session passes the cached media topology to the topology loader as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 13**, the rejection of **Claim 10** is incorporated; and Richter further discloses:

- wherein the topology loader is configured to determine whether there are corresponding nodes in the partial media topology and the cached media topology *(see Column 3: 25-29, "For example, to determine whether or not a multimedia flow may be created between block B1 and block B2, the application interface examines the connecting ports of output interface IS1 of block 1 and those of the input interface of block B2.").*

As per **Claim 14**, the rejection of **Claim 10** is incorporated; and Richter further discloses:

- wherein the topology loader is configured to clone one or more intermediate nodes from the cached media topology, and to connect the one or more intermediate nodes in a communication path between a media source and a media sink in a partial media topology *(see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").*

As per **Claim 15**, the rejection of **Claim 14** is incorporated; and Richter further discloses:

- wherein the one or more intermediate nodes comprise a decoder for decoding an output of a source node *(see Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.").*

As per **Claim 16**, the rejection of **Claim 14** is incorporated; and Richter further discloses:

- wherein the one or more intermediate nodes comprises an encoder for encoding an input of a source node *(see Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.").*

As per **Claim 17**, the rejection of **Claim 10** is incorporated; however, Richter and Debique do not disclose:

- wherein the topology loader is configured to maintain a data table that associates one or more decoder nodes with a source node from one or more previous topologies.

Potterveld discloses:

- wherein the topology loader is configured to maintain a data table that associates one or more data constructs with a data construct from one or more previous topologies *(see Column 7: 20-23, "The data constructs are indicated by labeled boxes and the relationships between the data constructs are indicated by lines connecting the related boxes to a diamond shaped entity.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the topology loader is configured to maintain a data table that associates one or more decoder nodes with a source node from one or more previous topologies. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).*

As per **Claim 18**, the rejection of **Claim 10** is incorporated; however, Richter and Debique do not disclose:

- wherein the topology loader maintains a data table that stores one or more encoder nodes from one or more previous topologies.

Potterveld discloses:

- wherein the topology loader maintains a data table that stores one or more data constructs from one or more previous topologies *(see Column 7: 20-23, "The data constructs are indicated by labeled boxes and the relationships between the data constructs are indicated by lines connecting the related boxes to a diamond shaped entity.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the topology loader maintains a data table that stores one or more encoder nodes from one or more previous topologies. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).*

As per **Claim 19**, the rejection of **Claim 10** is incorporated; and Richter further discloses:

- wherein the topology loader returns a fully resolved topology to the media session *(see Column 4: 14-19, "In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").*

As per **Claim 20**, Richter discloses:

- receive a partial media topology defined by the flow of data through various components that includes a plurality of nodes including at least a first media source node and at least a first media sink node *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."; Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.")*;

- retrieve a media topology that includes a plurality of nodes including at least a second media source node, at least a second media sink node, and at least one transform node *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For*

each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."; Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface."); and

- clone one or more nodes including state information from the media topology to a fully resolved media topology *(see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").*

However, Richter does not disclose:

- retrieve a cached media topology; and
- start a presentation clock after receiving data at the first media sink node.

Potterveld discloses:

- retrieve a cached media topology *(see Column 5: 29-41, "A collection of objects and the topological associations between them is referred to herein as a "topology." A system which manages such topologies is referred to herein as a "topological" management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between*

managed objects, and topological information is a set of relationships between managed objects."; Column 6: 60-67 to Column 7: 1-7, "It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include retrieve a cached media topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).*

Debique discloses:

- start a presentation clock after receiving data at the first media sink node *(see Paragraph [0016], "Examples of basic multimedia information that may be obtained and made available by the media source API include, but are not limited to, the duration of a multimedia presentation, the duration of any individual stream in the presentation, the number of streams in the presentation, the media types supported by each stream, and the start and stop times associated with each stream in the presentation, as described below in more detail.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Debique into the teaching of Richter to include start a presentation clock after receiving data at the first media sink node. The

modification would be obvious because one of ordinary skill in the art would be motivated to determine the duration of the multimedia content *(see Debique – Paragraph [0010])*.

As per **Claim 21**, the rejection of **Claim 20** is incorporated; however, Richter and Debique do not disclose:

- wherein the partial media topology is received from a remote process as a parameter in an interface call.

Potterveld discloses:

- wherein the partial media topology is received from a remote process as a parameter in an interface call *(see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API.")*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the partial media topology is received from a remote process as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 22**, the rejection of **Claim 20** is incorporated; however, Richter and Debique do not disclose:

- wherein the cached media topology is retrieved as a parameter in an interface call.

Potterveld discloses:

- wherein the cached media topology is retrieved as a parameter in an interface call *(see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the cached media topology is retrieved as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 23**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- determine whether there are corresponding nodes in the partial media topology and the cached media topology *(see Column 3: 25-29, "For example, to determine whether or not a multimedia flow may be created between block B1 and block B2, the application interface examines the connecting ports of output interface IS1 of block 1 and those of the input interface of block B2.").*

As per **Claim 24**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- transfer the at least one transform node from the cached media topology to the partial media topology *(see Column 4: 7-15, "The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system.").*

As per **Claim 25**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- clone a plurality of connected nodes from the cached media topology into the partial media topology *(see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").*

As per **Claim 26**, the rejection of **Claim 20** is incorporated; however, Richter and Debique do not disclose:

- maintain a data table that correlates one or more decoders in the cached media topology with one or more source nodes in the cached media topology.

Potterveld discloses:

- maintain a data table that correlates one or more data constructs in the cached media topology with one or more data constructs in the cached media topology *(see Column 7: 20-23, "The data constructs are indicated by labeled boxes and the relationships between the data constructs are indicated by lines connecting the related boxes to a diamond shaped entity.").*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to

include maintain a data table that correlates one or more decoders in the cached media topology with one or more source nodes in the cached media topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2)*.

As per **Claim 27**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- connect one or more nodes in the partial media topology *(see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses.")*.

As per **Claim 28**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- generate a data path between an output of an upstream node and an input of a downstream node *(see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses.")*.

15. **Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Richter** in view of **Potterveld**.

As per **Claim 29**, Richter discloses:

- means for receiving a partial media topology that defines how data flows through a plurality of nodes including at least a first media source node and at least a first media sink node *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."; Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.")*;

- means for retrieving a media topology that defines how data flows through a plurality of nodes including at least a second media source node, at least a second media sink node, and at least one transform node *(see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."; Column 4: 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.")*; and

- means for cloning one or more nodes including state information from the media topology to a fully resolved media topology *(see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the*

encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").

However, Richter does not disclose:

- means for retrieving a cached media topology; and

- means for associating a plurality of nodes with a same instance of their encoder or decoder and requiring a same encoder or decoder be re-used in a subsequent topology.

Potterveld discloses:

- means for retrieving a cached media topology *(see Column 5: 29-41, "A collection of objects and the topological associations between them is referred to herein as a "topology." A system which manages such topologies is referred to herein as a "topological" management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed objects."; Column 6: 60-67 to Column 7: 1-7, "It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.")*; and

- means for associating a plurality of nodes with a same instance of their encoder or decoder and requiring a same encoder or decoder be re-used in a subsequent topology *(see Column 7: 36-39, "A one-to-one relationship indicates that each data construct represented by the box at one end of the relationship is related to exactly one of the type of data constructs at the opposite end of the relationship.")*. [Examiner's Note: One of ordinary skill in the art would readily recognize that by defining a one-to-one relationship between Richter's multimedia processing blocks (*e.g.*, a source node and a decoder), the execution of the multimedia processing blocks are linked. Thus, if one multimedia processing block is executed in another processing configuration, the other multimedia processing block is also executed as required by the one-to-one relationship.]

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include means for retrieving a cached media topology; and means for associating a plurality of nodes with a same instance of their encoder or decoder and requiring a same encoder or decoder be re-used in a subsequent topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance *(see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2)*.

Response to Arguments

16. Applicant's arguments with respect to Claims 1, 10, and 20 have been considered but are moot in view of the new ground(s) of rejection.

In the Remarks, Applicant argues:

a) Richter is directed to a multimedia processing system. Richter discloses a multimedia processing system architecture which permits an application interface to select multimedia processing blocks. Richter, column 2, lines 10-27. However, Richter fails to disclose or suggest "facilit[ating] seamless presentation of media during dynamic changes," "associating a source node with the same instance of the decoder and requiring that the same decoder be used if a media source node is re-used in a subsequent topology or a destination node with the same instance of the encoder and requiring that the same encoder be used if a media destination node is re-used in a subsequent topology," or "facilitating the seamless presentation when receiving data from the media source node by starting a presentation clock after receiving data at the media sink node," as presently recited in independent claim 1.

Examiner's response:

a) Examiner disagrees. With respect to the Applicant's assertion that Richter fails to disclose or suggest "facilit[ating] seamless presentation of media during dynamic changes," the Examiner respectfully submits that the recitation of "facilit[ating] seamless presentation of media during dynamic changes" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Therefore, for at least the reason set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 1 is proper and therefore, maintained.

In the Remarks, Applicant argues:

b) Potterveld was cited for its alleged teaching of "retrieving a cached media pipeline topology" (Office Action, page 7). However, Potterveld fails to remedy the deficiencies in Richter noted above with respect to claim 1. For example, Potterveld fails to disclose or suggest "facilit[ating] seamless presentation of media during dynamic changes," "associating a source node with the same instance of the decoder and requiring that the same decoder be used if a media source node is re-used in a subsequent topology or a destination node with the same instance of the encoder and requiring that the same encoder be used if a media destination node is re-used in a subsequent topology," or "facilitating the seamless presentation when receiving data from the media source node by starting a presentation clock after receiving data at the media sink node," as presently recited in independent claim 1.

Examiner's response:

b) Examiner disagrees. With respect to the Applicant's assertion that Potterveld fails to disclose or suggest "associating a source node with the same instance of the decoder and requiring that the same decoder be used if a media source node is re-used in a subsequent topology or a destination node with the same instance of the encoder and requiring that the same encoder be used if a media destination node is re-used in a subsequent topology," the Examiner respectfully submits that Potterveld clearly discloses "associating a source node with the same

instance of the decoder and requiring that the same decoder be used if a media source node is re-used in a subsequent topology or a destination node with the same instance of the encoder and requiring that the same encoder be used if a media destination node is re-used in a subsequent topology" *(see Column 7: 36-39, "A one-to-one relationship indicates that each data construct represented by the box at one end of the relationship is related to exactly one of the type of data constructs at the opposite end of the relationship.")*. Note that one of ordinary skill in the art would readily recognize that by defining a one-to-one relationship between Richter's multimedia processing blocks (*e.g.*, a source node and a decoder), the execution of the multimedia processing blocks are linked. Thus, if one multimedia processing block is executed in another processing configuration, the other multimedia processing block is also executed as required by the one-to-one relationship.

Therefore, for at least the reason set forth above, the rejections made under 35 U.S.C. § 103(a) with respect to Claims 1 and 29 are proper and therefore, maintained.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191